

Title (en)

Probe tip design for optical near-field microscope

Title (de)

Design einer Sondenspitze für ein optisches Nahfeldmikroskop

Title (fr)

Design d'un embout de sonde pour un microscope à champs proche

Publication

EP 1385175 A1 20040128 (EN)

Application

EP 03254624 A 20030724

Priority

- JP 2002217084 A 20020725
- JP 2003018997 A 20030128

Abstract (en)

An optical waveguide device increases the intensity of light transmitted through an optical waveguide for a reduced cost without expanding the area of the light. The optical waveguide device according to the present invention includes an optical waveguide and defining surfaces defining the optical waveguide. The defining surfaces are formed of plasmon activating medium. The defining surface include a pair of inner parts that face each other along a direction perpendicular to a light transmission direction. The distance between the inner parts is less than the half of the wavelength of the light transmitted through the optical waveguide. <IMAGE>

IPC 1-7

G12B 21/06

IPC 8 full level

G01Q 60/18 (2010.01); **G01Q 60/22** (2010.01); **G01Q 80/00** (2010.01); **G02B 6/00** (2006.01); **G02B 6/10** (2006.01); **G02B 6/122** (2006.01); **G02B 6/24** (2006.01); **G11B 7/135** (2006.01); **H01L 21/027** (2006.01)

CPC (source: EP US)

B82Y 20/00 (2013.01 - US); **B82Y 35/00** (2013.01 - US); **G01Q 60/22** (2013.01 - EP US); **G02B 6/10** (2013.01 - EP US); **G02B 6/1226** (2013.01 - EP US); **G02B 6/241** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE FR GB

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EP 1385175 A1 20040128; **EP 1385175 B1 20070425**; CN 1284986 C 20061115; CN 1482473 A 20040317; DE 60313403 D1 20070606; DE 60313403 T2 20070906; JP 2004109965 A 20040408; JP 3668779 B2 20050706; SG 105581 A1 20040827; US 2004062477 A1 20040401; US 6947634 B2 20050920

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